

W/ 0950

#6

OIPE

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/825,147

DATE: 09/10/2001  
 TIME: 11:21:17

Input Set : A:\LEX-0160-USA SEQLIST.txt  
 Output Set: N:\CRF3\09102001\I825147.raw

4 <110> APPLICANT: Hu, Yi  
 5 Kieke, James Alvin  
 6 Turner, C. Alexander Jr.  
 7 Nehls, Michael C.  
 8 Friedrich, Glenn  
 9 Zambrowicz, Brian  
 10 Sands, Arthur T.  
 12 <120> TITLE OF INVENTION: Novel Human Ion Channel Protein and  
 13 Polynucleotides Encoding the Same  
 16 <130> FILE REFERENCE: LEX-0160-USA  
 C--> 18 <140> CURRENT APPLICATION NUMBER: US/09/825,147 9V  
 C--> 18 <141> CURRENT FILING DATE: 2001-04-03  
 18 <150> PRIOR APPLICATION NUMBER: US 60/194,255  
 19 <151> PRIOR FILING DATE: 2000-04-03  
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 23 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
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 26 <211> LENGTH: 2772  
 27 <212> TYPE: DNA  
 28 <213> ORGANISM: homo sapiens  
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 33 tcggggccggg gcagggtgtc gctgaactcg gcagccgcca gggcgacgg cctgtaactg 180  
 34 ctgggcaccc gcgcggccac gctcggtggc ggccggcggtg gcctgaggga gagccgcgg 240  
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 37 agaccccgcg gctggcggtt catctaccac gcttcgttt ttctccttgt ctttgggtgc 420  
 38 ttgattttgc cagtgtttt taccatccct gagcacacaaa aattggccctc aagttgcctc 480  
 39 ttgatcctgg agttcgat gatttgcgtc ttgggtttgg agttcatcat tcgaatctgg 540  
 40 tctgcgggtt gctgtgtcg atatagagga tggcaaggaa gactgaggtt tgctcgaaag 600  
 41 ccctctgtt ttatagatac cattgttctt atcgcttcaa tagcagggtt ttctgcaaaa 660  
 42 actcagggtt atattttgc cacgtctgca ctcagaagtc tccgtttctc acagatcctc 720  
 43 cgcatgggtc gcatggaccg aagggggaggc acttggaaat tactgggttc agtggtttat 780  
 44 gtcacagca aggaattaat cacagttgg tacataggat ttgggttct tatttttgc 840  
 45 totttccttg tctatctggt gaaaaaggat gccaataaaag agtttctac atatgcagat 900  
 46 gctctctggt ggggcacaat tacattgaca actattggct atggagacaa aactccctt 960  
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 53 accgacatca cagccgaggc cagtcaccacc aaagtgcaga agagctggag cttcaacgac 1380  
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59	cgtgttgate	aaattcttgg	aaaagggcaa	atcacatcag	ataagaagag	ccgagagaaa	1740
60	ataaacagcag	aacatgagac	cacagacgt	ctcagtatgc	tcggctgggt	ggtcaagggt	1800
61	gaaaaaacagg	tacagtccat	agaatccaag	ctggactgcc	tactagacat	ctatcaacag	1860
62	gtccttcgga	aaggctctgc	ctcagccctc	gctttggctt	cattccagat	cccacccctt	1920
63	gaatgtgaac	agacatctga	ctatcaaagc	cctgtgata	gcaaagatct	ttcgggttcc	1980
64	gcacaaaaca	gtggctgtt	atccagatca	actagtgc	acatctcgag	aggcctgcag	2040
65	ttcattctga	cgccaaatga	gttcagtgcc	cagacttct	acgcgcgttgc	ccctactatg	2100
66	cacagtcaag	caacacaggt	gccaattagt	caaagcgatg	gctcagcgt	ggcagccacc	2160
67	aacaccattg	caaaccataat	aaatacggca	cccaagccag	cagccccaaac	aactttacag	2220
68	atccccaccc	ctctcccgac	catcaagcat	ctgcccaggc	cagaaactct	gcaccctaacc	2280
69	cctgcaggct	tacagggaaag	catttctgac	gtcaccacct	gccttggc	ctccaaggaa	2340
70	aatgttcagg	ttgcacagtc	aaatctcacc	aaggaccgtt	ctatgaggaa	aagcttgc	2400
71	atgggaggag	aaactctgtt	gtctgtctgt	cccatggtgc	cgaaggactt	gggcaaattct	2460
72	ttgtctgtgc	aaaacctgtat	caggtcgacc	gaggaactga	atatacaact	ttcaggaggt	2520
73	gagtcaagt	gctccagagg	cagccaaagat	ttttacccca	aatggaggaa	atccaaattg	2580
74	ttataactg	atgaagaggt	gggtcccgaa	gagacagaga	cagacactt	tgatgocgca	2640
75	ccgcagccctg	ccagggaaagc	tgccttgc	tcagactctc	taaggactgg	aaggtcacga	2700
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79 <210> SEQ ID NO: 2

80 <211> LENGTH: 923

81 <212> TYPE: PRT

82 <213> ORGANISM: homo sapiens

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89	Gly Ser Gly Met Lys Asp Val Glu Ser Gly Arg Gly Arg Val Leu Leu						
90	35	40	45				
91	Asn Ser Ala Ala Ala Arg Gly Asp Gly Leu Leu Leu Leu Gly Thr Arg						
92	50	55	60				
93	Ala Ala Thr Leu Gly Gly Gly Gly Leu Arg Glu Ser Arg Arg						
94	65	70	75	80			
95	Gly Lys Gln Gly Ala Arg Met Ser Leu Leu Gly Lys Pro Leu Ser Tyr						
96	85	90	95				
97	Thr Ser Ser Gln Ser Cys Arg Arg Asn Val Lys Tyr Arg Arg Val Gln						
98	100	105	110				
99	Asn Tyr Leu Tyr Asn Val Leu Glu Arg Pro Arg Gly Trp Ala Phe Ile						
100	115	120	125				
101	Tyr His Ala Phe Val Phe Leu Leu Val Phe Gly Cys Leu Ile Leu Ser						
102	130	135	140				
103	Val Phe Ser Thr Ile Pro Glu His Thr Lys Leu Ala Ser Ser Cys Leu						
104	145	150	155	160			
105	Leu Ile Leu Glu Phe Val Met Ile Val Val Phe Gly Leu Glu Phe Ile						
106	165	170	175				
107	Ile Arg Ile Trp Ser Ala Gly Cys Cys Cys Arg Tyr Arg Gly Trp Gln						

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108	180	185	190
109	Gly Arg Leu Arg Phe Ala Arg Lys Pro Phe Cys Val Ile Asp Thr Ile		
110	195	200	205
111	Val Leu Ile Ala Ser Ile Ala Val Val Ser Ala Lys Thr Gln Gly Asn		
112	210	215	220
113	Ile Phe Ala Thr Ser Ala Leu Arg Ser Leu Arg Phe Leu Gln Ile Leu		
114	225	230	235
115	Arg Met Val Arg Met Asp Arg Arg Gly Gly Thr Trp Lys Leu Leu Gly		240
116	245	250	255
117	Ser Val Val Tyr Ala His Ser Lys Glu Leu Ile Thr Ala Trp Tyr Ile		
118	260	265	270
119	Gly Phe Leu Val Leu Ile Phe Ser Ser Phe Leu Val Tyr Leu Val Glu		
120	275	280	285
121	Lys Asp Ala Asn Lys Glu Phe Ser Thr Tyr Ala Asp Ala Leu Trp Trp		
122	290	295	300
123	Gly Thr Ile Thr Leu Thr Ile Gly Tyr Gly Asp Lys Thr Pro Leu		
124	305	310	315
125	Thr Trp Leu Gly Arg Leu Leu Ser Ala Gly Phe Ala Leu Leu Gly Ile		320
126	325	330	335
127	Ser Phe Phe Ala Leu Pro Ala Gly Ile Leu Gly Ser Gly Phe Ala Leu		
128	340	345	350
129	Lys Val Gln Glu Gln His Arg Gln Lys His Phe Glu Lys Arg Arg Asn		
130	355	360	365
131	Pro Ala Ala Asn Leu Ile Gln Cys Val Trp Arg Ser Tyr Ala Ala Asp		
132	370	375	380
133	Glu Lys Ser Val Ser Ile Ala Thr Trp Lys Pro His Leu Lys Ala Leu		
134	385	390	395
135	His Thr Cys Ser Pro Thr Asn Gln Lys Leu Ser Phe Lys Glu Arg Val		
136	405	410	415
137	Arg Met Ala Ser Pro Arg Gly Gln Ser Ile Lys Ser Arg Gln Ala Ser		
138	420	425	430
139	Val Gly Asp Arg Arg Ser Pro Ser Thr Asp Ile Thr Ala Glu Gly Ser		
140	435	440	445
141	Pro Thr Lys Val Gln Lys Ser Trp Ser Phe Asn Asp Arg Thr Arg Phe		
142	450	455	460
143	Arg Pro Ser Leu Arg Leu Lys Ser Ser Gln Pro Lys Pro Val Ile Asp		
144	465	470	475
145	Ala Asp Thr Ala Leu Gly Thr Asp Asp Val Tyr Asp Glu Lys Gly Cys		
146	485	490	495
147	Gln Cys Asp Val Ser Val Glu Asp Leu Thr Pro Pro Leu Lys Thr Val		
148	500	505	510
149	Ile Arg Ala Ile Arg Ile Met Lys Phe His Val Ala Lys Arg Lys Phe		
150	515	520	525
151	Lys Glu Thr Leu Arg Pro Tyr Asp Val Lys Asp Val Ile Glu Gln Tyr		
152	530	535	540
153	Ser Ala Gly His Leu Asp Met Leu Cys Arg Ile Lys Ser Leu Gln Thr		
154	545	550	555
155	Arg Val Asp Gln Ile Leu Gly Lys Gly Gln Ile Thr Ser Asp Lys Lys		560
156	565	570	575

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157 Ser Arg Glu Lys Ile Thr Ala Glu His Glu Thr Thr Asp Asp Leu Ser  
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159 Met Leu Gly Arg Val Val Lys Val Glu Lys Gln Val Gln Ser Ile Glu  
160 595 600 605  
161 Ser Lys Leu Asp Cys Leu Leu Asp Ile Tyr Gln Gln Val Leu Arg Lys  
162 610 615 620  
163 Gly Ser Ala Ser Ala Leu Ala Ser Phe Gln Ile Pro Pro Phe  
164 625 630 635 640  
165 Glu Cys Glu Gln Thr Ser Asp Tyr Gln Ser Pro Val Asp Ser Lys Asp  
166 645 650 655  
167 Leu Ser Gly Ser Ala Gln Asn Ser Gly Cys Leu Ser Arg Ser Thr Ser  
168 660 665 670  
169 Ala Asn Ile Ser Arg Gly Leu Gln Phe Ile Leu Thr Pro Asn Glu Phe  
170 675 680 685  
171 Ser Ala Gln Thr Phe Tyr Ala Leu Ser Pro Thr Met His Ser Gln Ala  
172 690 695 700  
173 Thr Gln Val Pro Ile Ser Gln Ser Asp Gly Ser Ala Val Ala Ala Thr  
174 705 710 715 720  
175 Asn Thr Ile Ala Asn Gln Ile Asn Thr Ala Pro Lys Pro Ala Ala Pro  
176 725 730 735  
177 Thr Thr Leu Gln Ile Pro Pro Pro Leu Pro Ala Ile Lys His Leu Pro  
178 740 745 750  
179 Arg Pro Glu Thr Leu His Pro Asn Pro Ala Gly Leu Gln Glu Ser Ile  
180 755 760 765  
181 Ser Asp Val Thr Thr Cys Leu Val Ala Ser Lys Glu Asn Val Gln Val  
182 770 775 780  
183 Ala Gln Ser Asn Leu Thr Lys Asp Arg Ser Met Arg Lys Ser Phe Asp  
184 785 790 795 800  
185 Met Gly Gly Glu Thr Leu Leu Ser Val Cys Pro Met Val Pro Lys Asp  
186 805 810 815  
187 Leu Gly Lys Ser Leu Ser Val Gln Asn Leu Ile Arg Ser Thr Glu Glu  
188 820 825 830  
189 Leu Asn Ile Gln Leu Ser Gly Ser Glu Ser Ser Gly Ser Arg Gly Ser  
190 835 840 845  
191 Gln Asp Phe Tyr Pro Lys Trp Arg Glu Ser Lys Leu Phe Ile Thr Asp  
192 850 855 860  
193 Glu Glu Val Gly Pro Glu Glu Thr Glu Thr Asp Thr Phe Asp Ala Ala  
194 865 870 875 880  
195 Pro Gln Pro Ala Arg Glu Ala Ala Phe Ala Ser Asp Ser Leu Arg Thr  
196 885 890 895  
197 Gly Arg Ser Arg Ser Ser Gln Ser Ile Cys Lys Ala Gly Glu Ser Thr  
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203 <211> LENGTH: 3111  
204 <212> TYPE: DNA  
205 <213> ORGANISM: homo sapiens  
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210	gcgcagcggc	ggcgccggcg	ggcggggggc	gcttggcg	cggcatgaag	gatgtggagt	180
211	cgggccccgg	cagggtgctg	ctgaactcg	cagccgccag	gggcgacggc	ctgtactgc	240
212	tgggcacccg	cgcggccacg	ctcggtggcg	gccccgggtgg	cctgagggag	agccgccccgg	300
213	gcaaggcaggg	ggccggatg	agcctgtgg	ggaagccgt	ctcttacacg	atagaccaga	360
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215	gaccccgccg	ctggcggttc	atctaccacg	ctttcggttt	tctccttgc	tttgggtgct	480
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L:18 M:271 C: Current Filing Date differs, Replaced Current Filing Date